

SECOND TERM EVALUATION 2024-25

BIOLOGY MODEL QUESTION PAPER

Standard: IX

Time: 1 ½ Hour

Total Score: 40

Instructions:

1. The first 15 minutes are for reading the questions carefully.
 2. Write answers according to the given instructions.
 3. Ensure answers reflect the allocated marks and time.
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Section A: Answer any 5 questions (Each question carries 1 mark)

(5 × 1 = 5)

1. Which pigment in plants is essential for photosynthesis?
 2. What is the main waste product formed during the metabolism of proteins in humans?
 3. Identify the structure that prevents food from entering the windpipe during swallowing.
 4. Which type of respiration occurs in the absence of oxygen?
 - a) Aerobic respiration
 - b) Anaerobic respiration
 - c) Cellular respiration
 - d) Alveolar respiration
 5. Name the part of the nephron where reabsorption primarily occurs.
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Section B: Answer any 6 questions (Each question carries 2 marks)

(6 × 2 = 12)

6. Differentiate between inspiration and expiration based on the direction of air movement and pressure changes in the lungs.
 7. Write a short note on the role of the diaphragm in breathing.
 8. Explain the importance of lenticels in woody plants.
 9. What are the main functions of haemoglobin in the human body?
 10. How do stomata regulate the exchange of gases in plants during the day?
 11. Write two differences between aerobic and anaerobic respiration.
 12. What is the role of surfactant in the alveoli of the lungs?
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Section C: Answer any 5 questions (Each question carries 3 marks)

(5 × 3 = 15)

13. Complete the table:

Plant Movement	Stimulus	Example
Phototropism		
Geotropism	Gravity	
Chemotropism		Growth of pollen tube
Hydrotropism	Water	

14. Describe the structural and functional differences between smooth and skeletal muscles.
15. Explain the process of gaseous exchange in the alveoli, emphasizing the role of diffusion.
16. Compare excretion in humans and plants by providing two differences.
17. What are the roles of the kidney and liver in the excretory process?

Section D: Answer any 2 questions (Each question carries 4 marks)

(2 × 4 = 8)

18. Based on the nephron structure:
- Identify and label the following parts in a diagram: glomerulus, proximal tubule, loop of Henle, collecting duct.
 - Explain the process of reabsorption in the renal tubules.
19. Discuss the differences between voluntary and involuntary muscles, providing examples for each type.
20. Extended response: Describe anaerobic respiration in yeast. Include:
- Byproducts formed.
 - Its significance in baking and brewing industries.